

**Flood Control Project Maintenance
Levee Inspections**
LMA District Cover Sheet
Spring 2018 Levee Inspection Results

Sacramento Maintenance Yard Willow Slough Bypass

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
† Overall LMA Rating (Fall Only)				

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2018 Levee Inspection Results

Sacramento Maintenance Yard Willow Slough Bypass

Waterway			Bank	Unit Miles
Unit No. 01 Willow Slough Bypass or North Levee			Left	5.05
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/12/2018 - 4/12/2018			
DWR Inspector	Zach Jojola			
Accompanied By	James McCabe DWR			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	04/12/2018 04/12/2018	Zach Jojola

LM Start		Rating **	A	Issue No.	6
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Operations & Maintenance Manuals				
DWR ID	DWR_ST0012_01_s _ 2013_6				
Comment Code					
Inspector Comment					
Sacramento Maintenance Yard has copies of their O&M manuals.					

No Photos

LM Start		Rating **	A	Issue No.	7
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Emergency Supplies & Equipment				
DWR ID	DWR_ST0012_01_s _ 2013_7				
Comment Code					
Inspector Comment					
Sacramento Maintenance Yard has a stockpile of flood response material.					

No Photos

LM Start		Rating **	A	Issue No.	8
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee		GPS Latitude/Longitude		
			Start	End	
Item	Flood Preparedness & Training				
DWR ID	DWR_ST0012_01_s _ 2013_8				
Comment Code					
Inspector Comment					
Sacramento Maintenance Yard has a written flood response plan and flood fight training.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	04/12/2018 04/12/2018	Zach Jojola

LM Start	0.00	Rating **	M	Issue No.	17
LM End	0.06	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.590772 °	38.590758 °
				-121.665343 °	-121.666370 °
DWR ID	DWR_ST0012_01_s _ 2017_17				
Comment Code					
FE : Fence					
Inspector Comment					
Chain link fence.					

Photo 1 of 1 : SP_2018_ST0012_295_17_20180413_00005.jpg



View of fence on the landside shoulder. Spring 2018.

LM Start	0.03	Rating **	M	Issue No.	5
LM End	2.36	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.590791 °	38.590508 °
				-121.665786 °	-121.708792 °
DWR ID	DWR_ST0012_01_s _ 2018_5				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.69	Rating **	M	Issue No.	9
LM End	1.56	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.590519 °	38.590398 °
				-121.678024 °	-121.694155 °
DWR ID	DWR_ST0012_01_s _ 2018_9				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	04/12/2018 04/12/2018	Zach Jojola

LM Start	1.53	Rating **	M	Issue No.	14
LM End	2.20	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.590334 °	38.590466 °
				-121.693618 °	-121.705849 °
DWR ID	DWR_ST0012_01_f_2016_14				
Comment Code					
FE : Fence					
Inspector Comment					
Barbed wire fence.					

Photo 1 of 1 : SP_2018_ST0012_295_14_20180306_00004.jpg



View of fence encroaching 10-foot easement on landward side of the levee. Fall 2016.

LM Start	2.93	Rating **	M	Issue No.	10
LM End	3.00	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.590572 °	38.590653 °
				-121.719349 °	-121.720714 °
DWR ID	DWR_ST0012_01_s_2015_10				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 1 : SP_2018_ST0012_295_10_20180306_00003.jpg



View of the erosion on the landward side of the levee looking upstream. Fall 2015.

LM Start	3.42	Rating **	M	Issue No.	12
LM End	5.03	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.590654 °	38.600078 °
				-121.728388 °	-121.752834 °
DWR ID	DWR_ST0012_01_s_2018_12				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	04/12/2018 04/12/2018	Zach Jojola

LM Start	3.42	Rating **	M	Issue No.	11
LM End	5.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.590654 °	38.600078 °
				-121.728388 °	-121.752835 °
DWR ID	DWR_ST0012_01_s_2018_11				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	3.50	Rating **	C	Issue No.	3
LM End	3.50	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			38.590731 °	38.590731 °
				-121.729906 °	-121.729906 °
DWR ID	DWR_ST0012_01_f_2016_3				
Comment Code					
C2 : Repair depressions or ruts in the crown or slope.					
Inspector Comment					

No Photos

LM Start	4.12	Rating **	M	Issue No.	4
LM End	4.60	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.596784 °	38.599845 °
				-121.737662 °	-121.744830 °
DWR ID	DWR_ST0012_01_s_2012_4				
Comment Code					
DT : Ditch					
Inspector Comment					
Ditch is at the levee toe.					

Photo 1 of 1 : SP_2018_ST0012_295_4_20180306_00002.jpg



View of the ditch on the landward side of the levee looking downstream.
Fall 2015.

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Willow Slough Bypass or North Levee	Left	5.05	04/12/2018 04/12/2018	Zach Jojola

LM Start	4.30	Rating **	M	Issue No.	18	
LM End	4.30	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.598840 °	38.598840 °	
				-121.739600 °	-121.739600 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:29303						
DS_ID:17684						
EP_NO: N/A						
Repair Type: Non-Urgent						
Crossing Status: Not Found						
UCIP Comments: 09/19/2012 PG&E may provide further info. (DWR UCIP - P. Amatya)						
FIELD_STRUCT_DESC: 8-inch gas line of unknown material through both levees. (Pacific Gas and Electric Co. [PG&E]). [Additional Reference(s): USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 1 (Station 46+50)]						
FS Date: 5/28/2013 2:36:00 PM						

No Photos

LM Start	5.07	Rating **	M	Issue No.	19
LM End	5.07	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.599940 °	38.599940 °
				-121.753530 °	-121.753530 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:44951 DS_ID:17667 EP_NO: 15811 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: 05/28/2013 No markers or other indication of pipe location. Needs to be marked. (DWR Sacramento Yard - C. Lund) FIELD_STRUCT_DESC: Replace existing 4-inch diameter natural gas pipeline with an 8-inch diameter natural gas pipeline under the channel and within both banks of Willow Slough. (Permit No. 15811, unknown year constructed - Shell Western E&P Inc.) FS Date: 5/5/2015 8:40:19 AM					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Spring 2018 Levee Inspection Results

Sacramento Maintenance Yard Willow Slough Bypass

Waterway			Bank	Unit Miles
Unit No. 02 Willow Slough Bypass or South Levee			Right	7.46
	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/12/2018 - 4/12/2018			
DWR Inspector	Zach Jojola			
Accompanied By	James McCabe DWR			

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	0.03	Rating **	M	Issue No.	16
LM End	1.58	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.599093 °	38.590039 °
				-121.753994 °	-121.730679 °
DWR ID	DWR_ST0012_02_s_2018_16				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.03	Rating **	A/W	Issue No.	14
LM End	0.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.598926 °	38.598926 °
				-121.753893 °	-121.753893 °
DWR ID	DWR_ST0012_02_f_2017_14				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Oversized section of levee with approximately 90' crown. Erosion on landside levee berm caused by runoff. Recommend monitoring					

Photo 1 of 2 : SP_2018_ST0012_296_14_20180413_00035.jpg



Updated view of erosion. Spring 2018.

LM Start	0.03	Rating **	A/W	Issue No.	14 (cont)
LM End	0.03	Issue Type +	Ma	Location *	LS

Photo 2 of 2 : SP_2018_ST0012_296_14_20180306_00018.jpg



View of erosion on landside slope. Fall 2017.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	0.05	Rating **	M	Issue No.	13
LM End	0.10	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.599009 °	38.599097 °
				-121.753617 °	-121.752676 °
DWR ID	DWR_ST0012_02_s_2017_13				
Comment Code					
EQ : Equipment					
Inspector Comment					
Beehives on landside slope.					

No Photos

LM Start	0.07	Rating **	M	Issue No.	33
LM End	0.07	Issue Type +	En	Location *	
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR UCIP Field Study			38.599100 °	38.599100 °
				-121.753260 °	-121.753260 °
DWR ID					
Comment Code					
Inspector Comment					
FS_ID:45283 DS_ID:17703 EP_NO: 15811 Repair Type: Non-Urgent Crossing Status: Not Found UCIP Comments: 05/10/2017 Unable to find permit file to clarify if crossing was constructed. (DWR UCIP - O. Magana) 05/24/2013 Need to contact owner of pipe to place indicators on levee. (DWR Sacramento Yard - C. Lund) FIELD_STRUCT_DESC: Replace existing 4-inch diameter natural gas pipeline with an 8-inch diameter natural gas pipeline under the channel and within both banks of Willow Slough. (Permit No. 15811, unknown year - Shell Western E&P Inc.) FS Date: 5/14/2015 1:35:47 PM					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	0.10	Rating **	M	Issue No.	4
LM End	1.58	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.599119 °	38.590039 °
				-121.752599 °	-121.730679 °
DWR ID	DWR_ST0012_02_s_2018_4				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	0.29	Rating **	M	Issue No.	7
LM End	0.40	Issue Type +	En	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Encroachments			38.598993 °	38.599045 °
				-121.749130 °	-121.747107 °
DWR ID	DWR_ST0012_02_s_2014_7				
Comment Code					
DT : Ditch					
Inspector Comment					
The ditch is located at the levee toe.					

LM Start	0.29	Rating **	M	Issue No.	7 (cont)
LM End	0.40	Issue Type +	En	Location *	LS

Photo 1 of 2 : SP_2018_ST0012_296_7_20180306_00006.jpg



An updated view of the ditch near LM 0.29. Fall 2016.

Photo 2 of 2 : SP_2018_ST0012_296_7_20180306_00007.jpg



View of the ditch on the landward side of the levee looking downstream. Spring 2016.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	1.21	Rating **	A/W	Issue No.	23
LM End	1.21	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.593368 °	38.593368 °
				-121.735605 °	-121.735605 °
DWR ID	DWR_ST0012_02_f_2016_23				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion on waterward side at utility crossing. Doesn't appear to be within prism, but should be monitored.					

Photo 1 of 1 : SP_2018_ST0012_296_23_20180306_00027.jpg



View of an erosion site around UCIP pipe FSID 13725 on waterward side of the levee. Fall 2016.

LM Start	1.57	Rating **	M	Issue No.	29
LM End	1.57	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.590064 °	38.590064 °
				-121.730723 °	-121.730723 °
DWR ID	DWR_ST0012_02_s_2017_29				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Tire damage on landside levee slope.					

Photo 1 of 1 : SP_2018_ST0012_296_29_20180306_00028.jpg



View of tire damage on landside levee slope. Spring 2017.

LM Start	1.65	Rating **	M	Issue No.	21
LM End	7.45	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.589991 °	38.574400 °
				-121.729386 °	-121.638783 °
DWR ID	DWR_ST0012_02_s_2018_21				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	1.77	Rating **	M	Issue No.	8
LM End	1.77	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589966 °	38.589966 °
				-121.727072 °	-121.727072 °
DWR ID	DWR_ST0012_02_s_2012_8				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion on waterside stability berm, at the edge of the road. Recommend monitoring.					

Photo 1 of 1 : SP_2018_ST0012_296_8_20180306_00008.jpg



View of the erosion on the edge of the channel looking downstream. Fall 2015.

LM Start	1.98	Rating **	M	Issue No.	22
LM End	7.45	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			38.589906 °	38.574400 °
				-121.723246 °	-121.638783 °
DWR ID	DWR_ST0012_02_s_2018_22				
Comment Code					
V1 : Control annual grass and weeds on the levee slopes and easements.					
Inspector Comment					

No Photos

LM Start	2.04	Rating **	A/W	Issue No.	5
LM End	2.04	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589906 °	38.589906 °
				-121.722218 °	-121.722218 °
DWR ID	DWR_ST0012_02_s_2012_5				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 2 : SP_2018_ST0012_296_5_20180306_00003.jpg



View of the erosion on the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	2.04	Rating **	A/W	Issue No.	5 (cont)	
LM End	2.04	Issue Type +	Ma	Location *	WS	
Category	Earthen Levee			GPS Latitude/Longitude		
				Start		End
Item	Erosion / Bank Caving			38.589906 °		38.589906 °
				-121.722218 °		-121.722218 °
DWR ID	DWR_ST0012_02_s_2012_5					
Comment Code						
E1 : Note and monitor erosion site.						
Inspector Comment						

Photo 2 of 2 : SP_2018_ST0012_296_5_20180306_00004.jpg



View of the erosion on the edge of the channel on the waterward side of the levee looking downstream. Spring 2016.

LM Start	2.25	Rating **	A/W	Issue No.	19
LM End	2.25	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589845 °	38.589845 °
				-121.718292 °	-121.718292 °
DWR ID	DWR_ST0012_02_f_2015_19				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion creeping onto toe road.					

Photo 1 of 2 : SP_2018_ST0012_296_19_20180306_00024.jpg



View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

LM Start	2.25	Rating **	A/W	Issue No.	19 (cont)
LM End	2.25	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2018_ST0012_296_19_20180306_00025.jpg



View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Spring 2016.

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	2.73	Rating **	A/W	Issue No.	20
LM End	2.73	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589707 °	38.589707 °
				-121.709429 °	-121.709429 °
DWR ID	DWR_ST0012_02_f_2015_20				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion starting to creep onto the toe road.					

Photo 1 of 1 : SP_2018_ST0012_296_20_20180306_00026.jpg



View of the erosion at the edge of the channel looking downstream. Fall 2015.

LM Start	2.82	Rating **	A/W	Issue No.	10
LM End	2.82	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589691 °	38.589691 °
				-121.707740 °	-121.707740 °
DWR ID	DWR_ST0012_02_f_2014_10				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 2 : SP_2018_ST0012_296_10_20180306_00012.jpg



Erosion on toe road. Fall 2014.

LM Start	2.82	Rating **	A/W	Issue No.	10 (cont)
LM End	2.82	Issue Type +	Ma	Location *	WS

Photo 2 of 2 : SP_2018_ST0012_296_10_20180306_00013.jpg



View of the erosion on the toe road looking downstream. Spring 2016.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	2.97	Rating **	A/W	Issue No.	9
LM End	2.97	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589686 °	38.589686 °
				-121.705041 °	-121.705041 °
DWR ID	DWR_ST0012_02_f_2014_9				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

LM Start	2.97	Rating **	A/W	Issue No.	9 (cont)
LM End	2.97	Issue Type +	Ma	Location *	WS

Photo 1 of 3 : SP_2018_ST0012_296_9_20180306_00009.jpg



An updated view of erosion site on waterward side. Fall 2016.

Photo 2 of 3 : SP_2018_ST0012_296_9_20180306_00010.jpg



Erosion on toe road. Fall 2014.

LM Start	2.97	Rating **	A/W	Issue No.	9 (cont)
LM End	2.97	Issue Type +	Ma	Location *	WS

Photo 3 of 3 : SP_2018_ST0012_296_9_20180306_00011.jpg



View of the erosion on the waterward side of the levee looking downstream. Fall 2015.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	2.98	Rating **	M	Issue No.	12
LM End	2.98	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.589673 °	38.589673 °
				-121.704690 °	-121.704690 °
DWR ID	DWR_ST0012_02_f_2017_12				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Tire ruts on landside slope.					

Photo 1 of 1 : SP_2018_ST0012_296_12_20180306_00017.jpg



View of tire ruts on landside slope. Fall 2017.

LM Start	3.60	Rating **	M	Issue No.	6
LM End	3.60	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			38.589552 °	38.589552 °
				-121.693408 °	-121.693408 °
DWR ID	DWR_ST0012_02_f_2017_6				
Comment Code					
A3 : No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					
Inspector Comment					
Burrow hole on landside slope near access ramp.					

Photo 1 of 1 : SP_2018_ST0012_296_6_20180306_00005.jpg



View of burrow hole near access ramp on landside. Fall 2017.

LM Start	3.95	Rating **	A/W	Issue No.	18
LM End	3.95	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589508 °	38.589508 °
				-121.686850 °	-121.686850 °
DWR ID	DWR_ST0012_02_s_2016_18				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 1 : SP_2018_ST0012_296_18_20180306_00023.jpg



View of the erosion on the waterward side looking downstream. Spring 2016.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	4.09	Rating **	A/W	Issue No.	24
LM End	4.09	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589538 °	38.589538 °
				-121.684177 °	-121.684177 °
DWR ID	DWR_ST0012_02_s_2018_24				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Runoff erosion on waterside toe road. Recommend monitoring.					

Photo 1 of 1 : SP_2018_ST0012_296_24_20180413_00036.jpg



View of erosion on the waterside toe road. Spring 2018.

LM Start	4.29	Rating **	A/W	Issue No.	11
LM End	4.29	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589550 °	38.589550 °
				-121.680632 °	-121.680632 °
DWR ID	DWR_ST0012_02_f_2014_11				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion is near waterside toe on waterside berm at storm drain. Recommend monitoring.					

Photo 1 of 3 : SP_2018_ST0012_296_11_20180306_00014.jpg



An updated view of the erosion site near the WS levee slope. Fall 2016.

LM Start	4.29	Rating **	A/W	Issue No.	11 (cont)
LM End	4.29	Issue Type +	Ma	Location *	WS

Photo 2 of 3 : SP_2018_ST0012_296_11_20180306_00015.jpg



Perspective view of the site. Fall 2016.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Levee Inspection Report By Mile - Spring 2018

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

Photo 3 of 3 : SP_2018_ST0012_296_11_20180306_00016.jpg



10/16/2015

View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

Photo 1 of 3 : UCIP_SP_2018_45285_22809.jpg



Waterside view- pipe and flap gate.

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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	4.59	Rating **	M	Issue No.	34 (cont)	
LM End	4.59	Issue Type +	En	Location *		
Category	Supplemental			GPS Latitude/Longitude		
				Start	End	
Item	DWR UCIP Field Study			38.589575 °	38.589575 °	
				-121.674950 °	-121.674950 °	
DWR ID						
Comment Code						
Inspector Comment						
FS_ID:45285 DS_ID:546 EP_NO: 10319 Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: 04/12/2017 WS & LS - good/clear, inspected by JK, RF. (DWR Sacramento Yard - C. Lund) 05/24/2013 Material removed from inlet last fall. Outlet cleared. (DWR Sacramento Yard - C. Lund) 09/20/2012 Soil and debris on inlet mouth. (DWR UCIP - P. Amatya) FIELD_STRUCT_DESC: 24-inch corrugated metal drainage pipe through the levee, 15 feet below the crown. Flap gate is located on the waterside (WS) end. (18-inch pipe [HLM 4.52] authorized under Automatic Board Order (ABO) issued as Permit No. 10319, 1974 - Bell) [Additional Reference(s): DWR Levee Log, 1990. USACE Sacramento O&M Manual Unit 120, Willow Slough Channel Relocation and Levee Construction, February 1947, Drawing No. 50-4-2281 Sheet 4 (Station 244+47)] FS Date: 5/14/2015 1:36:11 PM						

LM Start	4.59	Rating **	M	Issue No.	34 (cont)
LM End	4.59	Issue Type +	En	Location *	

Photo 2 of 3 : UCIP_SP_2018_45285_22811.jpg



Landside view- pipe and headwall.

Photo 3 of 3 : UCIP_SP_2018_45285_22810.jpg



Landside view- soil and debris on mouth of the inlet pipe.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable		N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	5.05	Rating **	A/W	Issue No.	15
LM End	5.05	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589570 °	38.589570 °
				-121.666588 °	-121.666588 °
DWR ID	DWR_ST0012_02_s_2015_15				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					
Erosion near levee toe on waterside berm at storm drain. Recommend monitoring.					

LM Start	5.05	Rating **	A/W	Issue No.	15 (cont)
LM End	5.05	Issue Type +	Ma	Location *	WS

Photo 1 of 3 : SP_2018_ST0012_296_15_20180306_00019.jpg



An updated view of the erosion site near the levee slope. Fall 2016.

Photo 2 of 3 : SP_2018_ST0012_296_15_20180306_00020.jpg



View of the erosion on the edge of the channel on the waterward side of the levee. Spring 2015.

LM Start	5.05	Rating **	A/W	Issue No.	15 (cont)
LM End	5.05	Issue Type +	Ma	Location *	WS

Photo 3 of 3 : SP_2018_ST0012_296_15_20180306_00021.jpg



View of the erosion at the edge of the channel on the waterward side of the levee looking downstream. Fall 2015.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	5.09	Rating **	A/W	Issue No.	17
LM End	5.09	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589565 °	38.589565 °
				-121.665731 °	-121.665731 °
DWR ID	DWR_ST0012_02_f_2016_17				
Comment Code					
E1 : Note and monitor erosion site.					
Inspector Comment					

Photo 1 of 1 : SP_2018_ST0012_296_17_20180306_00022.jpg



View of a site that may become a larger erosion site in the future.
Waterward side of the levee looking downstream. Fall 2016.

LM Start	5.59	Rating **	C	Issue No.	32
LM End	5.59	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			38.589532 °	38.589532 °
				-121.656631 °	-121.656631 °
DWR ID	DWR_ST0012_02_s_2017_32				
Comment Code					
E2 : Schedule repair of erosion site prior to the next inspection.					
Inspector Comment					
Erosion is near levee toe on stability berm at storm drain. There is also an adjacent sinkhole approximately 3' deep. Recommend repairing sinkhole.					

No Photos

LM Start	7.02	Rating **	M	Issue No.	25
LM End	7.02	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			38.575607 °	38.575607 °
				-121.646203 °	-121.646203 °
DWR ID	DWR_ST0012_02_s_2018_25				
Comment Code					
S3 : Repair the levee slope damaged by vehicle traffic and prevent access where possible.					
Inspector Comment					
Rutts on waterside slope.					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Spring 2018

Sacramento Maintenance Yard Willow Slough Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Willow Slough Bypass or South Levee	Right	7.46	04/12/2018 04/12/2018	Zach Jojola

LM Start	7.11	Rating **	C	Issue No.	3
LM End	7.12	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Cracking			38.574960 °	38.574925 °
				-121.644928 °	-121.644664 °
DWR ID	DWR_ST0012_02_f_2017_3				
Comment Code					
CR1 : Monitor and have inspected by geotechnical engineer.					
Inspector Comment					
100' crack on landside hinge point approximately 6" deep. Recommend monitoring.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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